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Isabella Hatak

RiCC – research report 2011/03

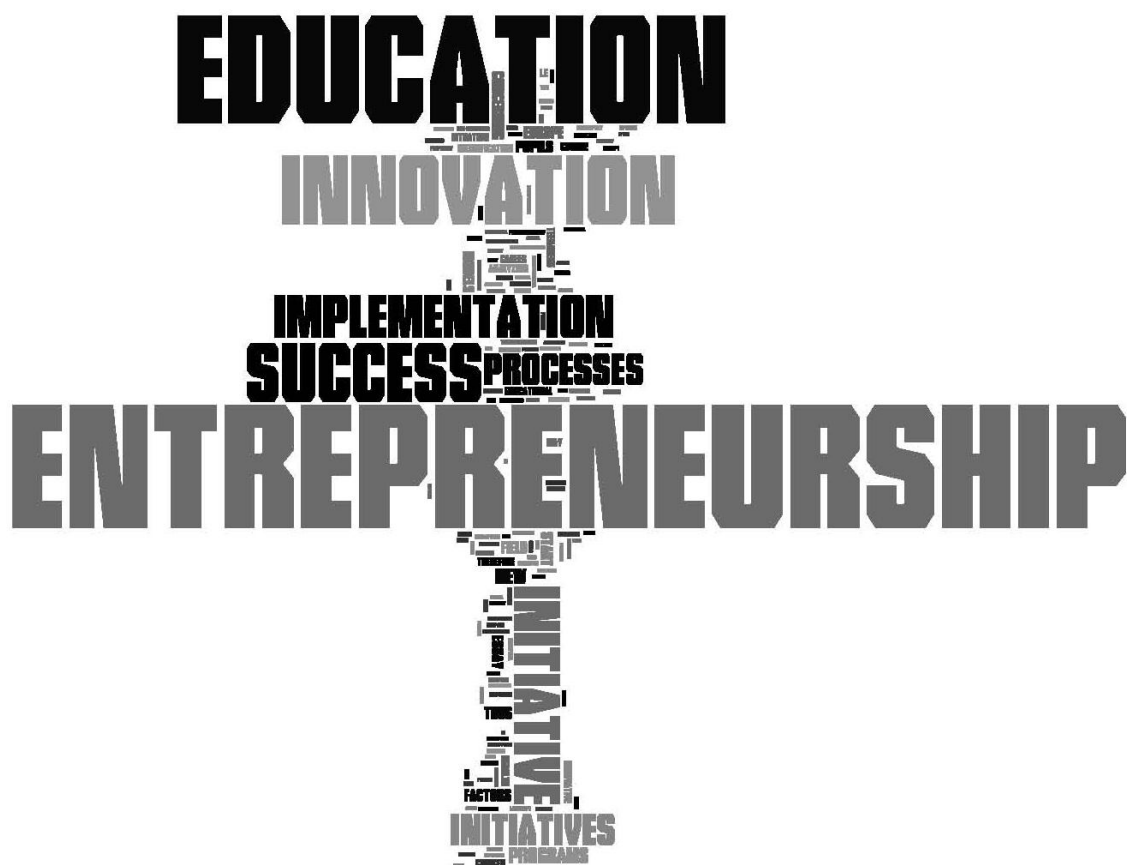
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INNOVATION IN ENTREPRENEURSHIP EDUCATION IN EUROPE

An Analysis of New Initiatives, Implementation Processes and Associated Success Factors

by
Isabella Hatak



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INTRODUCTION

National competitive advantage is increasingly dependent on the skill base of the workforce, and more specifically, on the ability of both firms and individuals to develop creative ideas and engage in innovative activity and in forms of economic activity. This has created an imperative for both general skills which relate to innovation and for specific entrepreneurial skills which relate to new venture creation. As Entrepreneurship serves as an important vehicle for economic and social prosperity, initiatives that stimulate entrepreneurship through education at various stages of human development are of high importance. In particular, it is argued that entrepreneurship education programs should start at an as early age as possible (Wilson et al. 2004; World Economic Forum 2009), because:

“[...] to a greater or lesser degree in just about every culture there are skeptical or even hostile attitudinal barriers to entrepreneurship. [...] And hence the need for entrepreneurship education aimed specifically at young people, who are typically more open to self-exploration and usually more willing to challenge received wisdom and societal prejudice than are most adults [...].” (World Economic Forum 2009: 30).

The development and the implementation of entrepreneurship education programs for pupils, however, are linked with many specific challenges. For example, pupils are often not allowed to start up their own companies or may not have full control over their financial situation. Moreover, career choices may be part of some distant future for teenagers. As a result, educational initiatives aimed at stimulating entrepreneurship can be perceived by teenagers as irrelevant, or can be long forgotten by the time actual career choices have to be made (Peterman/Kennedy 2003; Lepoutre et al. 2010). Therefore, the question is, which initiatives are suited to improve the pupils' knowledge base and skills relating to “how to start a business”, resulting in increased entrepreneurial motivation, capability and understanding, and thus, in a higher propensity to start up a company, and ultimately, in a larger share of entrepreneurs and innovators within the economy. The following analysis thus aims at identifying models, programs and new initiatives that exist under the broad heading of entrepreneurship education and at deriving success factors in the course of analyzing the implementation processes associated with best practice initiatives in entrepreneurship education. The essay is structured as follows: First, the literature in

the field of entrepreneurship education is reviewed in order to overcome the conceptual confusion concerning what entrepreneurship and entrepreneurship education is and what this concept intends to accomplish. Second, the different models, and programs, i.e. methods used for teaching/learning entrepreneurship in Europe are described. Third, new initiatives in the field of entrepreneurship education are identified. In the course of assessing their implementation, success factors are derived from analyzing the results of the conducted semi-structured interviews with experts in the field of entrepreneurship education. Fourth, recommendations for embedding entrepreneurship successfully in curricula across all educational levels/types are given.

Due to the focus of the study, i.e., the identification of new, innovative initiatives and the success factors concerning their implementation, a qualitative research strategy is pursued. Therefore, the results of this essay do not intend to provide any statistical evidence, but rather a global picture of the current situation concerning entrepreneurship education in Europe being as close as possible to reality, providing an overview of models, programs in entrepreneurship education, and also of some new initiatives and implementation processes. The essay thus sheds light on the landscape of entrepreneurship education in Europe and contributes to the identification of characteristics of successful innovative initiatives allowing for the derivation of recommended courses of action.

In the process of information-gathering, experts from several countries have been interviewed. In this connection it is a pleasure to thank especially Prof. Tom Cooney, Prof. Nicole Göler von Ravensburg, Prof. Inge Koch-Polagnoli and Prof. Johannes Lindner for their willingness to participate in this study by sharing their experiences in entrepreneurship education.

1. ENTREPRENEURSHIP EDUCATION – A CONCEPTUALIZATION

1.1 DEFINING ENTREPRENEURSHIP

Entrepreneurship is seen as the symbol of business tenacity and achievement (Kuratko/Hodgetts 2001). It was introduced as a topic for discussion and analysis by the economists of the 18th century when economist Richard Cantillon associated the “risk-bearing” activity in the economy with the entrepreneur. The association of entrepreneurship and economics has long been the accepted norm. For Joseph Schumpeter, who formed the concept of entrepreneurship and analyzed its impact on economic development entrepreneurship, entrepreneurship

“[...] consists in doing things that are not generally done in the ordinary course of business routine; it is essentially a phenomenon that comes under the wider aspect of leadership” (Schumpeter 1951: 255).

After reviewing the evolution of entrepreneurship and examining its varying definitions, Ronstadt put together a summary definition:

“Entrepreneurship is the dynamic process of creating incremental wealth. This wealth is created by individuals who assume the major risks in terms of equity, time, and/or career commitment of providing value for some product or service. The product or service itself may or may not be new or unique but value must somehow be infused by the entrepreneur by securing and allocating the necessary skills and resources” (Ronstadt 1984: 28).

Risk taking, innovation, uniqueness, and creation of wealth are examples of the criteria that have been developed as the study of new business creation has evolved (Stevenson/Gumpert 1985; Kuratko/Hodgetts 2001). In this essay, entrepreneurship is thus understood as the process of creating value by bringing together a unique package of resources to exploit an opportunity and converting this into marketable products or services. Therefore, entrepreneurship is opportunity-driven (not resource-constrained) behavior. The entrepreneur sees an opportunity and acts on it by creating value through exploiting proprietary physical resources, applying proprietary knowledge or expertise and creating a new or improved product, process, or service. The unique package can thus include: product innovation, new distribution approach, alternative service delivery method, different way of packaging, etc.

The decision to start an entrepreneurial venture consists of several sequential phases: (1) the decision to leave a present lifestyle or career, (2) the decision that an entrepreneurial venture is desirable, and (3) the decision that both external and internal factors make the creation of a new venture possible. Basically, the decision to start an entrepreneurial venture is influenced by pushing and pulling influences: the “push” of being owner manager, and the “pull” toward entrepreneurship of seeing an unfulfilled need in the marketplace. The desirability of starting one’s own company is strongly influenced by culture, subculture, family, teachers, and colleagues. Any of these impacts can function as a source of encouragement for entrepreneurship, with support ranging from government and thus also education policies that favor business to strong personal role models of family or friends (Hisrich/Peters 2002). Beyond the stage of seeing entrepreneurship as a “good idea”, the potential entrepreneur must possess or acquire the relevant education, entrepreneurial skills, and financial resources for launching the venture.

The study of entrepreneurship is highly important, because on the one hand it helps entrepreneurs to better meet their demands, and on the other hand because of the economic contribution of the new venture. Entrepreneurship does not only lead to an increased national income by creating new jobs, but it also acts as a positive force in economic growth by serving as a bridge between innovation and the marketplace. The entrepreneur thus serves as the major link in the process of innovation development, economic growth and revitalization. Therefore, it is of high relevance that potential entrepreneurs acquire technical and business skills within their education so that they can become successful entrepreneurs that contribute to an increased national income and economic growth. Therefore, the study of entrepreneurship and the education of potential entrepreneurs are essential parts of any attempt to strengthen this link so essential to a country’s economic well-being.

1.2 DEFINING ENTREPRENEURSHIP EDUCATION

As discussed before, entrepreneurship is an economic and social phenomenon, a research object, and more and more, an academic and teaching subject. This development becomes manifest not only in the increasing number of entrepreneurship teachers and trainers, but also in the increasing number of entrepreneurship courses and programs offered at all levels of the education system, and in the emerging infrastructure aiming at supporting entrepreneurship education (Hytti/O’Gorman 2004; Kuratko 2005). It is thus becoming clear that entrepreneurship, or certain facets of it, can be taught. For example, Peter Drucker, a leading management thinker, said

“The entrepreneurial mystique? It’s not magic, it’s not mysterious, and it has nothing to do with the genes. It’s a discipline. And, like any discipline, it can be learned” (Drucker 1985).

Additional support for this view that entrepreneurship can be taught comes from a 10-year (1985 to 1994) literature review of enterprise, entrepreneurship, and small business management education that reported,

“[...] most of the empirical studies surveyed indicated that entrepreneurship can be taught, or at least encouraged, by entrepreneurship education” (Gorman et al. 1997: 63).

Given the widely accepted notion that entrepreneurial ventures are the key to innovation, productivity, and effective competition (Plaschka/Welsch 1990), the question of whether entrepreneurship can be taught is obsolete. However, conceptual confusion regarding entrepreneurship education still exists. According to Fayolle (2006), the variety of definitions comes from both the diversity of approaches within one same frame of reference (for example, academic), and the co-existence of various spheres that target the field (academic, political, practical). Nevertheless, in order to enable an efficient entrepreneurship education for young people (Hytti/O’Gorman 2004), a coherent framework, in terms of perspectives, objectives, contents and pedagogical methods, is needed, so that the different spheres improve their communication with and understanding of the others, which in turn benefits the success of implementing an entrepreneurship education strategy. Therefore, the

following questions need to be answered in order to accomplish the goal of an increasing number of successful entrepreneurs: What? For whom? Why? How?

If the field of entrepreneurship is understood as

“examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited” (Shane/Venkataraman 2000: 218),

entrepreneurship education can be defined as

“knowledge transfer of how, by whom, and with what effects, opportunities to create future goods and services are discovered, evaluated and exploited” (Hindle 2007: 107).

This definition gives account for the works of Austrian economists (i.e., economists from the Austrian school), notably Schumpeter and Kirzner, and also for March's (1991) contribution to the field by differentiating between exploration and exploitation dimensions (entrepreneurial and resource management functions, respectively), and finally, those of Stevenson and Gumpert (1985).

1.3 OBJECTIVES OF ENTREPRENEURSHIP EDUCATION

Ronstadt (1987) posed the following question regarding entrepreneurial education:
What should be taught?

According to Hytti and O’Gorman (2004) we can differentiate between three objectives of entrepreneurship education. The first objective of teaching entrepreneurship is to increase the understanding of what entrepreneurship is about (Chen et al. 1998). In order to achieve this objective, students across all levels of the education system (primary, secondary, higher) are provided with information in the form of seminars, lectures, media campaigns in order to raise awareness of an entrepreneurial career. The importance of reaching this goal results from the fact that the individual’s propensity to pursue alternative employment paths is mainly influenced by the knowledge of alternative options, i.e., in order that an individual becomes an entrepreneur, it has to know of the option of becoming an entrepreneur (Hytti/O’Gorman 2004). In this context, there have been certain major themes that analyzed entrepreneurship and new-venture creation. The following list, which summarizes some of the most relevant themes that are now part of entrepreneurship education across different levels of the education system, echoes the importance of increasing the knowledge of entrepreneurship (Kuratko 2005):

- The entrepreneurial spirit is universal, judging by the enormous growth of interest in entrepreneurship around the world in the past few years (e.g., Zahra et al. 2001).
- The economic and social contributions of entrepreneurs, newly created companies, and family businesses have been shown to make highly disproportionate contributions to job creation, innovation, and economic and social prosperity, compared with the contributions that the 500 or so largest companies make (e.g., Upton et al. 2001).
- Ethics and entrepreneurship (e.g., micro-credit initiatives) have become a fast growing area of research due to the more recent scandals found in corporations (e.g., Morris et al. 2002; Kuratko/Goldsby 2004).
- Entrepreneurial strategies have been identified that show relevant common denominators, issues, and trade-offs between entrepreneurship and strategy (e.g., Hitt et al. 2001).

- The risks and trade-offs of an entrepreneurial career have been subject of keen research interest relevant to would-be and practicing entrepreneurs alike (e.g., McGrath et al. 1992).

The second objective of teaching entrepreneurship is to transfer the entrepreneurial approach to the potential workforce, i.e., people that do not intend to set up their own company, but rather work in businesses started by others (Hytti/O’Gorman 2004). The importance of reaching this goal results from the expectation that continuous innovation (in terms of processes, products, services, and administrative routines and structures) and an ability to compete effectively in markets are among the skills that increasingly influence corporate performance in the twenty-first century’s global economy. In this context, corporate entrepreneurship is seen as a process that can facilitate firms’ efforts to innovate constantly and cope effectively with the competitive realities that companies encounter when competing in markets. Therefore, “corporate entrepreneurship may be formal or informal activities aimed at creating new businesses in established companies through product and process innovations and market developments. These activities may take place at the corporate, division (business), functional, or project levels, with the unifying objective of improving a company’s competitive position and financial performance” (Zahra 1991: 262). Many companies today are realizing the need for corporate entrepreneuring. Articles in popular business magazines (Business Week, Fortune, Success, U.S. News & World Report) are stressing the importance of infusing entrepreneurial attitudes and behaviors into large bureaucratic structures so that firms of all sizes can prosper and flourish in competitive environments (Barringer/Bluedorn 1999; Kuratko/Hodgetts 2001). In this regard, the following list, which summarizes some of the most significant themes that are now part of entrepreneurship education across different levels of the education system, shows the relevance of strengthening skills that influence corporate performance (Kuratko 2005):

- The entrepreneurial and managerial spheres are not mutually exclusive, but overlap to a certain extent. Whereas the former is more opportunity-driven, the latter is more resource- and “conversation”-driven (e.g., Ireland et al. 2003).

- Corporate entrepreneurship and the need for internal corporate venturing have gained much attention during the past few years (e.g., Zahra 1991; Miles/Covin 2002; Zahra et al. 1999).

The third objective of teaching entrepreneurship is to prepare individuals for their future career as entrepreneurs by strengthening their entrepreneurial competencies and attitudes which are needed for managing new ventures successfully. Every person has the potential and free choice to pursue a career as an entrepreneur. However, not every person that decides to become an entrepreneur becomes a successful entrepreneur. Several studies have been conducted to determine the personal qualities and traits of successful entrepreneurs. For example, if the work of Kao (1991) is considered, the following common characteristics can be identified: total commitment, drive to achieve and grow, opportunity and goal orientation, taking initiative and personal responsibility, persistent problem solving, realism and a sense of humor, seeking and using feedback, internal locus of control, calculated risk taking and risk seeking, low need for status and power, integrity and reliability. Besides these specific personal qualities and traits characterizing a successful entrepreneur, an entrepreneur has to possess specific skills as to “how to” start and run a small business in order to be successful in the short and long run. The following list, which summarizes some of the most relevant themes that are now part of entrepreneurship education across different levels of the education system, reflects the importance of strengthening entrepreneurial competencies and attitudes which are a prerequisite for entrepreneurial success (Kuratko 2005):

- The great variety among types of entrepreneurs and the methods they have used to achieve success have motivated research on the psychological aspects that can predict future success (e.g., Kickul/Gundry 2002).
- Venture financing, as well as other innovative financing techniques, emerged in the 1990s with unprecedented strength, fueling another decade of entrepreneurship and entrepreneurship education (e.g., Shepherd/Zacharakis 2001).
- Women and minority entrepreneurs have emerged in unprecedented numbers. They seem to face obstacles and difficulties different from those that other entrepreneurs face (e.g., Chaganti/Greene 2002).

2. TEACHING ENTREPRENEURSHIP IN EUROPE – AN OVERVIEW

Ronstadt (1987) also posed another relevant question regarding entrepreneurial education: ***How should it be taught?***

In the context of answering the question, Ronstadt proposed an entrepreneurial program which makes potential entrepreneurs aware of barriers to initiating their entrepreneurial careers and can devise ways to overcome them. He developed a two-continuum model of curricular design for entrepreneurship education: The “structured–unstructured” continuum refers to various methods of transferring information and expertise, e.g., lectures, case studies, and feasibility plans. The second continuum is labeled “entrepreneurial know-how/entrepreneurial know-who.” This continuum represents the belief that success in entrepreneurship is dependent not only on knowledge, but also on the network of individuals with whom an entrepreneur is connected. Ronstadt contends that an effective program must show students “how” to entrepreneurially behave and should also introduce them to people who might be able to facilitate their success (Kuratko 2005).

Solomon (2007) conducted one of the most comprehensive empirical analyses on entrepreneurship education. In his review of entrepreneurship pedagogy, he stated:

“The most common elements in entrepreneurship courses continue to be venture plan writing, case studies, readings and lectures [...]”(Solomon 2007: 173).

Basically, the typical methods of entrepreneurship education are class work, tests, presentations and a major project which is usually a consulting project. Project based, experiential learning is widespread in entrepreneurial education and can take various forms such as the

- pupils’ business start-ups, also known as mini-enterprises or practice firms (Truell et al. 1998) associated with the development of business plans (Gorman et al. 1997),
- consultation with practicing entrepreneurs (Solomon et al. 1994),
- and computer simulations (virtual firms) (Solomon 2007).

Other popular teaching methods as to entrepreneurship are

- interviews with entrepreneurs,

- real cases,
- certifications,
- and field trips (Solomon 2007).

In Europe, the most frequent method of entrepreneurship education is the use of student business start-ups. Therefore, this teaching method will be described in depth below by discussing the objectives and the various forms of so-called mini-enterprises in various European countries.

Basically, the programs “mini-enterprises”, “practice firms”, “virtual firms”, “student companies” all refer to the same concept, namely companies ran by students selling real products/services or virtual/practice businesses, provided that the simulation is sufficiently realistic and that the following criteria are met: 1) Students work in teams on an enterprise project, within the organizational structure of a fictitious company, reproducing the functions, processes and objectives of a real firm. The students are responsible for all management aspects concerning the simulated firm. 2) Interactions with the surrounding world are ensured to the extent that students carry out their tasks in coordination with real firms, or in direct consultation with business people (acting as mentors, etc.), or liaising with the local community (European Commission 2005).

In the following, the expressions “student company”, “mini-enterprise”, “practice firm”, “virtual firm” are used synonymously, i.e., representing companies operated by students in which real products or services are produced and sold, and standing for virtual or practice firms that fulfill the criteria listed above. Therefore, a student company can be understood as a

“pedagogical tool based on practical experience by means of running a complete enterprise project, and on interaction with the external environment (i.e. the business world or the local community)” (European Commission 2005: 14).

The objective of a student company is to get involved in the entrepreneurial process, which starts with the business idea and the analysis of its feasibility, leading to the foundation of a real company and operating the business on a small scale, or to a realistic simulation of an economic activity:

1. Referring to the first type, i.e., the real business, students decide on the product or service they want to produce and sell, choose their managers and raise capital. After preparing a business plan and finalizing the marketing strategy, they produce or order the product designed. The company has to plan how to finance the purchases of raw materials and stock. Students will sell their products or services in the school or outside the school environment, and keep accounts. At the end of the year, in some cases the company or branch goes into liquidation and students present a report. In other cases, the business is continued (by the students of the subsequent academic years) (Hatak/Reiner 2011).

Germany

The “Junior” project has found a broad acceptance in the German education system. It provides a special framework for running a mini-enterprise and targets young students above the age of 15 years (-20). The mini-enterprise is divided into several departments so that every firm has to accomplish tasks in the following fields: marketing, procurement, accounting and finance. Each student fulfills a specific position and function. The products of these mini-enterprises are innovative, in line with the market, and are market price-oriented. Events like trade fairs, national and regional contests are incorporated into the program. At national and international fairs, JUNIOR-enterprises get a chance to present themselves, their products and services and, at the same time, get in touch with other student companies. The mini-enterprises are counseled throughout the year by the JUNIOR-office. The JUNIOR-Office, a business segment of the Institut der deutschen Wirtschaft Köln (Cologne Institute for economic research), enables student-companies to get in touch with other companies, real businesses and associations. In addition to the counseling, every student and supervisor receives materials as to how to run a company. Workshops, booklets and materials on the Internet are available on special topics, such as marketing and accounting, through which the students receive further input for a successful business management. Mentors and auditors from the business world are also involved in the program, and provide students with information and advice.

After one school year of operations the mini-enterprise is liquidated and the dividend is paid back to the shareholder. Students who successfully complete the program

receive a certificate that is well-known in the business community.

Best Practice

In 2002, the JUNIOR-company S4S - Students for Students - was founded. It offers “the Spielmaschine” (games machine), a collection of 166 games for group meetings, seminars and birthday parties. The product was developed by the founders, i.e. each game was categorized, rated according to specific criteria and equipped with multiplexed information. The company sold over 580 copies of the product, had a turnover of almost 5,000 Euros and realized a profit of almost 2,000 Euros, which represents an increase in the share value of 256%.

As in every JUNIOR-company, the students divided their workload into four departments: administration, marketing, production and finance. The marketing department conducted a survey at the beginning of the project and was responsible for press and public relations, which were successfully managed - by TV reports, radio reports and many newspaper articles. The marketing department also checked out new ways of selling the product, e.g., by using fairs, cooperation with another JUNIOR-company and the web. The production department was not only responsible for producing the Spielmaschine, but also had to sort out the most cost-effective way of printing the product.

All students stressed the benefits of the project, e.g., getting a realistic impression of the professional world, becoming familiar with economic topics, improving their personal skills and strengthening capabilities in working with others. Some of the students continued the activities after the JUNIOR Company had to be liquidated.

Spain

The programme Empresa Joven Europea (EJE) has been included in the secondary education curriculum of the Principality of Asturias.

Empresa Joven Europea is aimed at students aged 12-16 years. Throughout a full academic course, students start up and manage import-export companies involved in real trade activities with student companies abroad. Students communicate via video-conference and e-mail with partner companies abroad, place and dispatch orders and sell imported goods at the local trade fair. Eventually, profits are distributed among the partners of the company and a portion of profits goes to an

NGO or any other community project.

Besides fostering the entrepreneurial skills of pupils, the program considers new technologies as an integral part of the teaching-learning process. Also, positive attitudes are promoted toward foreign language learning as an instrument of communication between partner mini-companies located in different countries.

Sweden

Best Practice

In Sweden, the business mission of the mini-company “Presnatch” is based on offering a solution to the problem of guests being robbed of their bags/handbags in public places, such as cafés, restaurants and hotels, thus creating safety and convenience for the guests. “Presnatch” produced an innovative hook that prevents handbag theft in restaurants and bars. The company cooperated closely with Sweden’s National Police Force. The company develops, designs, markets and sells the “Preventor”. The product is placed under the table by each chair in a café, restaurant and/or hotel. The guests can then hang their bags on the hook. Presnatch’s product means that the visiting guests do not have to keep their bags on their laps, which increases comfort and convenience.

To secure the ownership of the product design, students applied for exclusive rights for the “Preventor” at the Swedish Patent and Registration Office.

2. Referring to the second type, i.e., the realistic simulation of business tasks aiming at replicating the operations and challenges of a real company, the designs vary due to the different approaches towards simulation.

- In the case of business games, activities rely to a large extent on information technological tools. However, also if business activities are being computer-assisted, team work and interacting with the environment, e.g., with mentors, business people and the local community in general, need to be ensured. In other words, a mere computer game cannot be seen as a mini-company.
- In other cases, a fictitious company is set up so that students get involved with entrepreneurial tasks. In order to enable a close contact with reality, students are provided with physical space (the office) and instruments

necessary for running the business. As it is the case for a real company, the fictitious enterprise is also divided into departments (marketing, sales, accounts, logistics, etc.) and students perform management tasks. Therefore, the main difference between a virtual enterprise and a real mini-company is that no real goods are produced and no actual currency is exchanged in the case of a virtual enterprise. However, virtual firms can use real companies as partners and as models for their operations (e.g., practice firms in Austria, France), and sometimes even perform real business activities using the products of the partner company (Finland) (Hatak/Reiner 2011).

Austria

In Austria “ALCA Bohne GmbH” is a practice firm trading in coffee and tea, founded in 1993 and located in a college for business administration in the region of Salzburg (Neumarkt am Wallersee). The age of the students is 17 – 18; practice firm work is in the fourth year of this 5-year professional business education.

In the previous school years students are trained in several relevant business subjects to meet the challenges of the practice firm work. ALCA Bohne shows an optimal performance and is a reliable partner on the national practice firm market with about 950 competitors, a standard within the practice firm business competition in Austria. This practice firm - students and teacher - provides a long lasting and quality educational work. Even though the company staff (students) changes every school year, the company maintains its own high standard, showing that programs like student companies have an impact on the education quality itself. ALCA Bohne works with two real partner firms that support the student company through all the years and who profit themselves by the students’ competences.

France

All institutions of secondary education of the Academy of Rennes can participate in a program called “Une entreprise dans votre lycée”, including public and private schools (lycées) for comprehensive, technical and professional education.

In the course of this program, students create - on the basis of a product or service idea - their own company. After the administrative and legal setting up of a fictitious

company, the project promoters share responsibilities and tasks concerning the foundation of their company: market research and competition, registering of the company name, creation of a logo, technical development, negotiations with the suppliers or subcontractors, marketing, and sales, etc.

Every year, a competition takes place with ten teams of students (12 students per team/company on average) from the institutions of the Academy of Rennes. In the course of this competition, the teams have to present their company at a booth and have to make an oral presentation in front of a panel consisting of professionals, e.g., representatives of partner companies and CEOs. The three best companies are awarded a prize by the regional council.

Finland

Practice firms are used in secondary vocational education at national level in Finland. The company itself is fictitious, but some practice firm students are participating in real business activities using the partner company's products. FINPEC (Finnish Practice Enterprises Centre) is the organization promoting practice firms in Finland. The length of practice firm training varies approximately from three months to 1 year. An interesting application is to replace the curricular course by a business planning activity, thus prolonging the duration of practice firm activity (in some form) to 3 years. The pedagogical objective is that students become familiar with business planning, are able to work on different tasks in the firm, understand the business as a whole and learn a set of soft skills. Practice firms interact actively with other practice firms and with the outside world, especially with the partner company at the beginning of the practice firm period.

Best Practice

The Merikoski Vocational school has replaced standard courses within the curricular framework by a practice firm's business plan. That business plan guides students during the whole duration of their studies (3 years). Where before the established curriculum provided guidance on what was to be studied, now the business planning activity leads the different blocks of the study program. The first two years are dedicated to planning and preparation, and improving the work already done. The third year is dedicated for the actual practice firm activity.

The business plan is developed in co-operation with the partner company and financier, which creates significant added value for students. Representatives from partner companies are on the board of the practice firm to guide its operations and provide incentives for the operations.

Concerning this example, practice firm students actually took part in the business of a partner company by selling its products, which created added value for students. Students also performed test marketing activities for the partner company at international practice firm fairs. These experiences have proved to be very effective for the students' learning and adaptation process (www.finpec.fi).

Typically, as shown by the examples, the program "student company" takes one school year (9-10 months). However, there are also programs that take just 4 to 5 months (e.g., examples can be found in Estonia and Lithuania) or only a few weeks (e.g., in Hungary, Sweden). So, on the one hand there are programs that take a school year and thus, seem to offer plenty of time for getting into the entrepreneurial process (from generating a business idea to putting it into practice, producing, selling and make profit) and for dwelling on the development of an established business. On the other hand, in some European countries brief and more "intensive" versions of mini-company programs, which take only 8 to 12 weeks, are applied (e.g., "Get up and Go" and "Blast:Beat" in Ireland). Due to their limited duration they can be implemented biyearly or in the summer months providing students with a surface impression of running an enterprise and raising their awareness (e.g., in Sweden).

Sweden

The project "Open for Business" offers the program Summerentrepreneur, which takes places during the summer holidays (8 weeks) and focuses on young people from 17 to 19 years. The goal is to give young people the opportunity to gain the knowledge and experience of running a company and to learn about entrepreneurship during their summer holiday, thus creating their own summer job instead of having a job given to them by the municipality.

The project starts with a two-week introduction course, combining theory and practice. During these two weeks participants are granted subsidy from the municipality (55-65 Swedish crowns per day). Then they run their own company for

six weeks. The summer-entrepreneurs receive a special F-tax (a sort of tax permit to run a company) from the beginning of June until the end of August. At the end of August the entrepreneurs liquidate the company and submit their own income tax return to the tax authority.

Interaction with businesses or with the local community is ensured thanks to the participation of advisers or counselors from industry, the municipality and other organizations. Up to now more than 100,000 pupils have participated in this project over the past 8 years (www.summerentrepreneur.com).

In school, activities associated with the program “student company” take usually place once or twice weekly, lasting for 1 to 2 hours per lesson (resulting in a total of 1 to 4 hours per week). These activities can be complemented with “out-of-school work”, i.e., students have to volunteer time for operating their business (development of the products, managing contacts with providers and customers, sales, etc.) so that this type of program consists of both “in-school” and “out-of-school” components (e.g. “Mini-entreprise” in Belgium). In other cases, the activities associated with the “student company” are carried out entirely on a voluntary basis. Students meet their colleagues in their spare time, and get support from teachers or business advisors. In fact, the success of this type of “student company” depends to a large extent on the enthusiasm and goodwill of students and teachers.

Experience has shown that the teaching method “student company” can be implemented in every school type: in comprehensive secondary education as well as in vocational training or in business and commercial schools. It constitutes either an extra-curricular activity or an in-school-program, depending on how the national education system is structured and, ultimately, depending on the school’s decision.

In the course of teaching entrepreneurship, i.e. implementing the “student company” program and administering the associated activities, the underlying thinking is that students take the primary role. Teachers act as coaches and facilitators of learning, rather than performing the traditional teacher role as suggested by constructivist learning theory (Tenenbaum et al. 2001; Hytti/O’Gorman 2004). They do not press their ideas upon students, but rather provide them with support and advice. Students develop the ideas by themselves and are fully responsible for the operations of their

mini-company. Teachers thus act as tutors, intervening only to a slight extent in the decision-making processes within student groups. Action learning is about learning from one's own experience: students make mistakes, and by overcoming the consequences of their mistakes they acquire and strengthen skills. However, teachers have to accomplish the following tasks in order to encourage the functioning of a student company: assisting students in defining the subject, guiding the group through the start-up phase, acting as mediators in the case of group-internal problem, etc. Concerning the coaching roles, teachers should limit authoritative instructions, focusing rather on providing the students with the necessary questions which enable them to identify the critical issues and to realize where they need support/advice. Basically, advice should be given in form of suggestions and options so that the student can decide on how to proceed (Hytti/O'Gorman 2004).

As teachers have a strong impact on the success of the program "student company", teacher training is a critical element within the process of developing effective entrepreneurship education initiatives. Basically, a teaching style that is action-oriented, encourages experiential learning, problem-solving, project-based learning, creativity, and supportive of peer evaluation. According to several studies (e.g., Hytti/O'Gorman 2004), teachers, who are familiar with entrepreneurship and its dimensions and the entrepreneurial process, possess the best prerequisites for teaching entrepreneurship. Entrepreneurial teacher training can be provided by external organizations which offer meetings with peers, practical manuals, organization of seminars, in-service training and permanent advice. Structured in-service training for teachers, i.e., the other type of teacher training, is provided by colleagues, who educate teachers in entrepreneurship and entrepreneurial teaching methods (Hatak/Reiner 2011).

Austria

The Initiative for Teaching Entrepreneurship (IFTE) has been created to develop and provide teacher training. Basically, IFTE offers intensive workshops, i.e. summer schools, for Entrepreneurship Education in Kitzbühel. The annual courses run one week in July and are intended for teachers from both vocational schools and colleges, and general secondary education tracks. The program is broad, and topics include entrepreneurship in the context of educational philosophy, business ethics,

and ideas creation, along with practical work on implementation, and how to use change management processes in order to create innovative educational organizations. There is a strong emphasis on experiential learning. The course team is drawn from across business, universities and schools, reflecting the fact that the IFTE is backed by a range of sponsors from the public and private sectors. It is also planned to set up a national strategy for teacher training incorporating the idea of Entrepreneurship Education (www.ifte.at).

Finland

Pre-service training in Entrepreneurship Education for teachers is compulsory in three teacher-education institutes (Kajaani Department of Teacher Education of the University of Oulu, crafts teachers' programmes in the Rauma Department of Teacher Education of the University of Turku and the Vaasa Department of Åbo Akademi University) and elective in several others. In addition, measures have been taken to recruit more people for teacher training with an educational background in Entrepreneurship and with personal experience in the field of Entrepreneurship.

Spain

In Spain, the Institute for Small and Medium-sized Enterprise of Valencia (IMPIVA) and the Valencia Foundation for University and Enterprise (ADEIT) have joined forces to offer schools in the area improved access to the business community. The scheme involves a consortium of business people from the city whose aim is to promote entrepreneurship in schools. This goal is primarily achieved through the delivery of training and targeted activities financed by the consortium of companies.

An example is a summer school which aims at training teachers to motivate students in entrepreneurship. This program features a classroom 'workshop' as well as online training.

Sweden

In Sweden, the non-profit Framtids Frön or "Future Seeds" initiative offers teachers of 6-16 year olds a 'fruit basket' of resources from which they can select the most suitable for their students and teaching methods. Several programs are offered, designed to help schools to work in a more entrepreneurial way, linked to specific

elements of the existing curriculum including: developing curiosity and a desire to learn; developing children's own ways of learning; learning to use knowledge to formulate and test hypotheses; problem-solving; children reflecting on their own learning experiences, and learning to work both independently and with others. The objective is to offer a knowledge base to inspire students, teachers and other school staff to develop and reinforce their entrepreneurial ability.

The participation of business volunteers within the “student company” program is of high importance for the success of this teaching method, as business volunteers can get students enthusiastic about their “job” and guide them realistically through the entrepreneurial process (e.g., “Junior Achievement Company Programme” in Ireland, “Young Enterprise Company Programme” in the UK). For example, the “Mini-Ondernemingen” program in the Netherlands seeks to ensure that every student company has at least three advisors: a (former) businessman, an accountant and a teacher. Whereas teachers coordinate and facilitate the implementation of the program and ensure the success of the program, accounts help students in overcoming task-related difficulties, and business advisors have the most useful effect by passing on first-hand management experience from the real business world to students (European Commission 2005).

3. NEW INITIATIVES IN THE FIELD OF ENTREPRENEURSHIP EDUCATION

3.1 SCHUMPETER-HANDELSAKADEMIE

The “Schumpeter-Handelsakademie“ (= Schumpeter Secondary College for Business Administration, Schumpeter-HAK) is an educational model that aims at strengthening entrepreneurial competencies of gifted students by promoting the entrepreneurial spirit within all subjects.

The idea for this concept evolved in the course of a pedagogical conference in 1998. The next step in the process of establishing a new educational model was the development of a new curriculum for a school pilot project at the Secondary College for Business Administration in the 13th district of Vienna (= the BHAK/BHAS 13). The main actors in this process of developing a new curriculum, which can be implemented within the existing curriculum of the school type “Secondary College for Business Administration”, and thus, not a new, but rather a modified curriculum, and implementing the project were:

- a team of highly motivated Austrian teachers of the BHAK/BHAS Wien 13, which played the major role in fostering entrepreneurship throughout the curriculum
- Professor Aff, Head of the Institute for Business Education at the WU Vienna University of Economics and Business, who supported the project with accompanying research, evaluation and continuous development
- the Regional School Inspector of Vienna, and
- the Federal Ministry for Education, Science and Culture which authorized the developed curriculum.

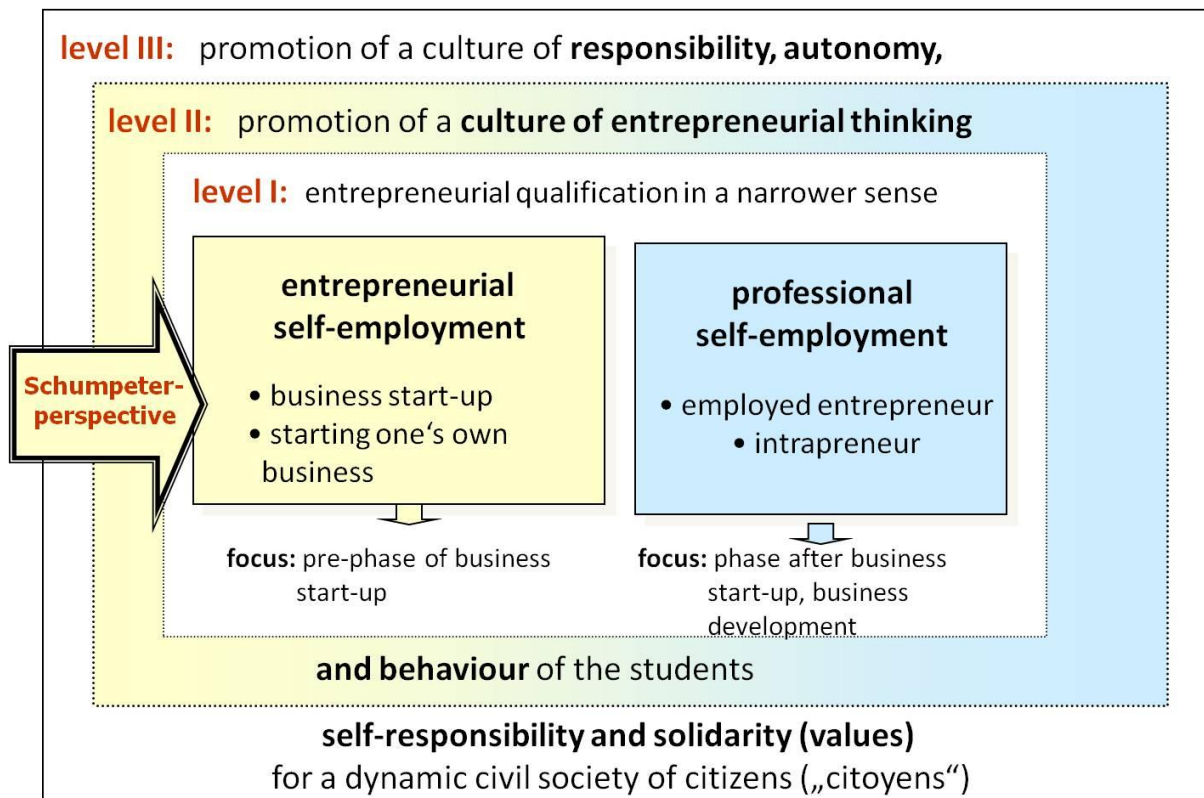
From school year 2000/01 to school year 2004/05, the curriculum was put into practice within a school pilot project at the BHAK/BHAS Wien 13. More precisely, in September 2000 the project was implemented in one class of grade one at the BHAK/BHAS Wien 13 for the first time. (The new curriculum was not implemented in the other classes of grade one at the BHAK/BHAS Wien 13. Therefore, the Schumpeter-class and the normal classes of the Secondary College for Business Administration co-existed.) In each of the following five school years, the project was implemented in one class of grade one, so that in every grade there was one, but only one, class being part of the pilot project Schumpeter-HAK.

The pilot project, i.e., the Schumpeter-HAK has been designed as a continuous program meaning that the students that were members of the Schumpeter-class in grade one at the BHAK/BHAS 13 also graduated as members of the Schumpeter-class after completing 5 years of secondary education. Basically, the school type Secondary College for Business Administration takes five years (grade 9 to 13) and ends with the so called “Reifeprüfung” (comparable to a High School diploma). It provides students with an integrated general and sound business (commercial) education that qualifies them for white-collar jobs at the executive level in commercial and administrative branches and gives access to post-secondary colleges, universities of applied sciences and universities. Thus, as the first Schumpeter-class started in September 2000, the Schumpeter Secondary College for Business Administration was completed by students in June 2005 for the first time. Since school year 2005/06, the model “Schumpeter-HAK” is a permanent educational option at the BHAK/BHAS 13, because of the success of the school pilot project.

Basically, the Schumpeter-HAK aims at ***promoting outstanding students***. Students who have passed lower secondary school or the lower level of secondary academic school (grade 8) with distinction can take part in the ***acceptance process*** for Schumpeter-HAK. More precisely, applicants have to accomplish a four-step-process, which consists of assessment center, personal interview, etc., in order to be admitted to the Schumpeter-HAK.

Whereas the average size of class in Austria is approx. 30 students, Schumpeter-classes consist of only 24 students. The ***small class size*** enables a focused and personalized study environment, promoting entrepreneurial characteristics like commitment, drive to achieve, opportunity orientation, and entrepreneurial competencies like ability to work in a team, presentation skills, ability to communicate, coordinate, ability to seek and use feedback, etc.

As mentioned above, the curriculum of the Schumpeter-HAK is different compared to the curriculum implemented in ordinary Secondary Colleges for Business Administration. More precisely, the concept of ***entrepreneurship*** has been integrated in the curriculum of the Schumpeter-HAK at ***three levels*** (Lindner 2011):



(Source: Koch-Polagnoli 2010)

The perspective of the economist Joseph Schumpeter, who is seen as one of the initiators of entrepreneurial thinking and acting, serves as a starting point for the educational model “Schumpeter-HAK”. Based on his understanding of entrepreneurship, the curriculum of the BHAK/BHAS 13 was modified, in fact, towards specific entrepreneurship education, combining general and vocational education and thus focusing on a holistic understanding of personality formation. The underlying premise of the concept is that entrepreneurship education is not only about preparing students for their future work as owner managers or intrapreneurs by strengthening their **entrepreneurial competencies** and promoting a **culture of entrepreneurial thinking and behavior**, but also about increasing their independence and **social responsibility** within everyday life. The following figure describes the objectives of the Schumpeter-HAK in more detail.

Entrepreneurship in a narrower sense

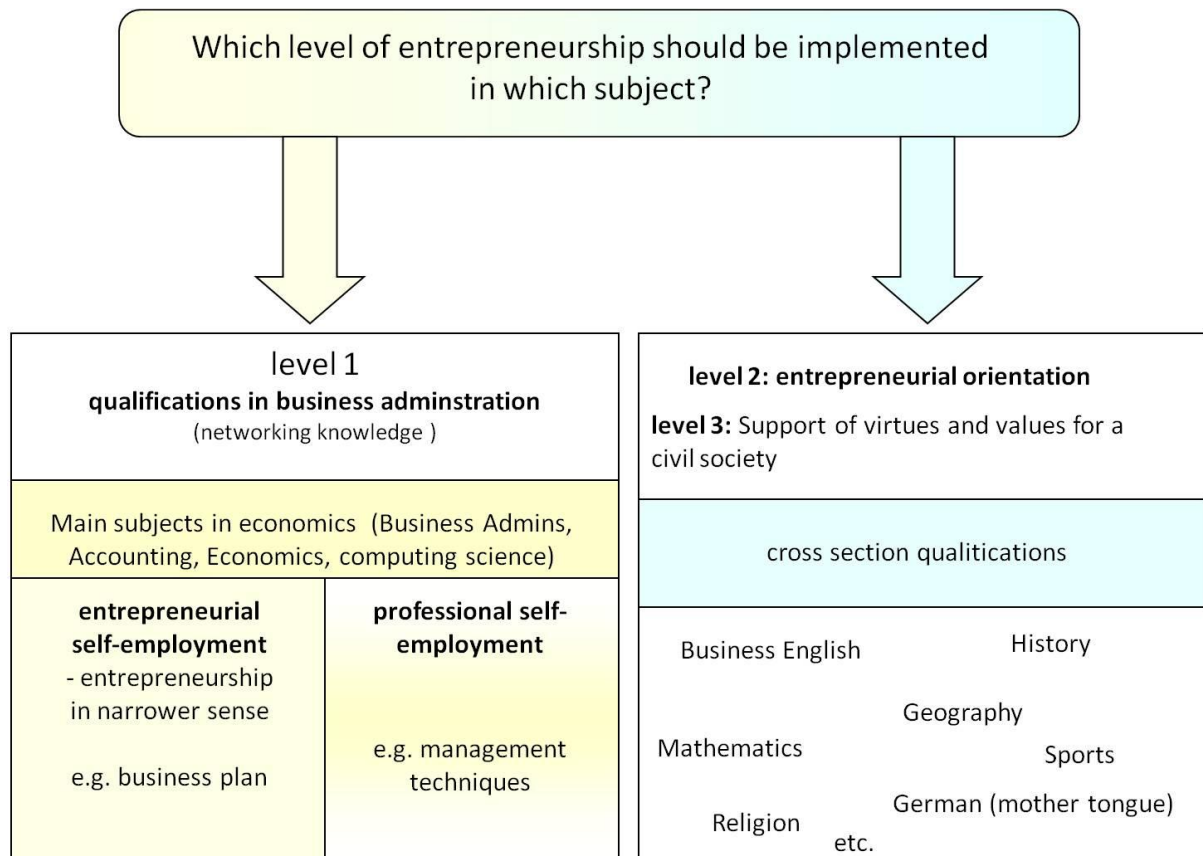
| |
|---|
| <p>level 1 entrepreneurial and professional self-employment</p> |
| <p>Teaching the core competences of entrepreneurial and professional self-employment – especially in economic subjects!</p> |

Entrepreneurship in a broader sense

| | |
|---|---|
| <p>cross-section qualification „inter-disciplinary“ challenge</p> | <p>level 2</p> <p>promotion of conducts between self-initiative, openness for innovation and social sensibility, as well as competence to form the basis of a culture of entrepreneurial thinking and acting</p> |
| | <p>level 3</p> <p>promotion of conducts like self-responsibility and responsibility towards</p> <ul style="list-style-type: none"> > employees - <u>social sensibility</u> > natural resources – <u>ecological sensibility</u> > following generations – <u>ethical sensibility</u> <p>as the „basic virtues“ of a dynamic civil society of responsible citizens (Citoyens)</p> |
| | |

(Source: Koch-Polagnoli 2010)

In order to achieve the objectives at all three levels, and thus, to embed entrepreneurship successfully in the curriculum, contents associated with level 1 (core competencies of entrepreneurial and professional self-employment) were integrated into the **main subjects in business and economics** (e.g., Accounting, Business Administration, etc.). Contents associated with level 2 and 3 were embedded in all courses as **cross-curricular activities** because of their interdisciplinary nature.



(Source: Koch-Polagnoli 2010)

More precisely, the curriculum was modified in the following way (Hytti 2011; Koch-Polagnoli 2011):

- **Project management tools** have been integrated in all subjects of grade one and two.
- A special focus is on the subject “**Enterprise Foundation and Business Management**”, which starts in grade three.
- In grade three, the students have to carry out a **project** within the subject ‘Practical Training in Business Administration and Project Management’ and within this project they have to **co-operate with a firm**.
- Up until their 4th year of study, the students have to **intern in a company** (the internship has to take two month in total).
- In the summer break between grade 4 and 5, the students have to do an **internship abroad** (the internship has to take at least two weeks).
- The curriculum includes the study of **two foreign languages**; the students are obliged to attend additional courses at an external training institution.

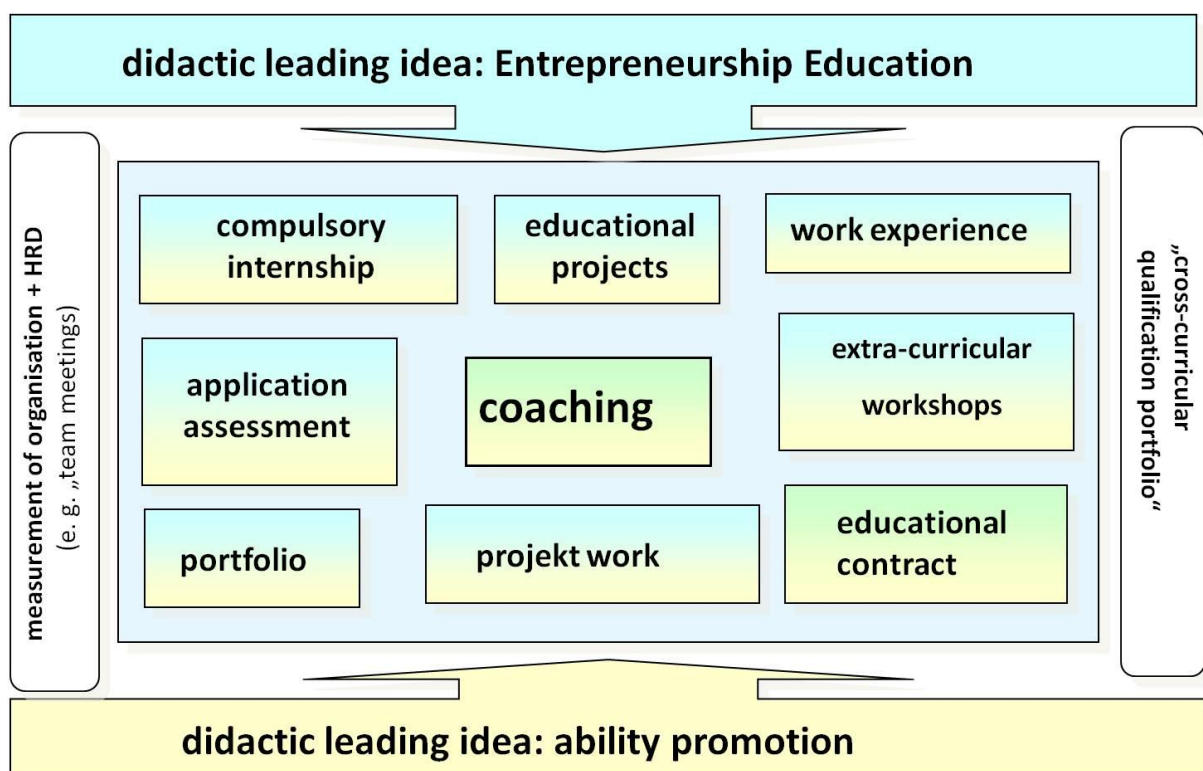
- The curriculum of the Schumpeter-HAK sets 5 hours per week aside for **individual or in-group learning** or for the fulfillment of personalized tasks (the associated goal is to strengthen the students' self-organization).
- All students have to participate in **extra-curricular activities**, and thus, have to attend extra-curricular study group-meetings (these working groups are supervised by students, teachers, parents or external persons from companies and within these groups, the students work on educational tasks that are targeting various school subjects and thus, do require an interdisciplinary approach in order to fulfill them).

The contents of the subject of focus “**Enterprise Foundation and Business Management**” are the following (Hytti 2011):

- Basics as to the foundation of an enterprise (professional image, social position and image of an entrepreneur, kinds of self-employment, paths to self-employment)
- Legal framework and enterprise foundation
- Idea generation, decision and planning of business development
- Development of business concepts
- Analysis of start-ups (factors for success and failure, new foundation, take-over, franchising)
- Finance
- Marketing
- HR management
- Accounting
- Strategic business management
- Controlling concepts (strategic and operational controlling)
- Business development and crisis management

Referring to the teaching/learning methods applied within the Schumpeter-classes it is to say that they are as innovative as the adaptation of the curriculum. The leading didactic principles are entrepreneurship education and ability promotion, which are carried out by applying the following teaching/learning methods (Koch-Polagnoli 2011):

- A major feature of the Schumpeter-classes is the **“Portfolio Study Record”**. Each student receives a portfolio consisting of three main elements: the “Educational Contract” (concluded between the student and the school), the “Study Record” (agreed upon between teachers, student and parents), and a “Documentation Folder” (which is filled by the student with his/her project reports, awards, essays in German and English, work experience, references, etc.). The “Educational Contract” consists of a general part (laying down e.g. the organizational rules, the student’s duties and the work groups s/he participates in) and an individual part, in which the student’s (learning) objectives for one school-year are predetermined (in accordance with his/her coach). The “Study Record” is a means of communication between teachers, student and parents. The “Documentation Folder” is most helpful within the application for internships, grants (for start-ups), jobs, universities, scholarships, etc.
- As mentioned above, **five hours per week** are devoted to individual learning and can be used by the students for achieving the objectives as agreed upon with the teacher (coach).



(Source: Koch-Polagnoli 2010)

- Innovative education requires new methods of teaching, like **team-teaching** (co-operation between teachers for general education and teachers for economic education in order to enable the fostering of the entrepreneurial spirit) and **coaching** of student groups. The teachers, who teach the students of “Schumpeter-classes”, have been well prepared for their new tasks before the project was implemented. (Only those teachers of BHAK/BHAS 13, who want to participate in the educational model “Schumpeter-HAK”, teach Schumpeter-classes and thus, they volunteer for vocational education and training activities. Therefore, there is no pressure for the teachers of the BHAK/BHAS 13 to be part of the Schumpeter-HAK – if a teacher is not interested in this educational model, he/she teaches only the classes of BHAK/BHAS 13 – **voluntariness** is seen as a key for intrinsic motivation.) During the pilot phase the teachers were supervised by Prof. Aff from the Department of Economic and Vocational Education of the University of Cologne (now: from the Institute for Business Education at the WU Vienna University of Economics and Business) and his team which provided scientific support during the whole pilot phase.
- Other innovative methods of teaching and learning include **case studies, business simulations, and idea workshops, work in a practice firm and project-oriented work.**
- A strong practice-orientation is achieved in the Schumpeter-classes not only because of the students’ **project-related co-operation** with companies, but also because of the **two obligatory work placements** in Austria and abroad. (Internships are usually done on a voluntary basis by students of the Secondary Colleges for Business Administration.)
- In order to strengthen their **relational competence**, Schumpeter-students work as **tutors** in other classes of the BHAK/BHAS 13.

The new learning/teaching methods were **continuously analyzed, documented and evaluated** by the Department of Economic and Vocational Education at the University of Cologne. This accompanying research was seen as a dynamic and communicative learning process leading to an improved program. Another positive aspect of this accompanying research project was the facilitated dissemination of the developed methodical and didactical approaches leading to a promotion of entrepreneurship education. The results of the first evaluation of the Schumpeter-

HAK provide evidence for the success of the educational model (Aff et al. 2001): 1) *Motivation for attending the Schumpeter-HAK*: 12 out of 15 students stated that they can imagine becoming self-employed and for this reason they attend the Schumpeter-HAK, 13 students were of the opinion that the attendance of the Schumpeter-class is a big challenge and that it encourages students to working to capacity, 10 students out of the total of 15 thought that attending an elite school like the Schumpeter-HAK increases their future job opportunities; 2) *Coaching as an instrument in the Schumpeter-class*: for 7 parents out of a total of 15, coaching had a positive influence on their decision to register their children for the Schumpeter-HAK, 6 teachers out of the total of 16 stated that they would like to use coaching also within “ordinary” classes; 3) *Overall perspective*: 13 out of a total of 15 students would recommend the Schumpeter-HAK to their friends, 13 out of a total of 15 teachers would recommend attending the Schumpeter-HAK, all of the parents would advise young people to attend the Schumpeter-HAK.

3.2 YOUNG ENTREPRENEUR PROGRAMME (YEP) & AWARD

The Young Entrepreneur Programme (YEP) is a unique opportunity to explore and develop the entrepreneurial talents of all participants in an innovative way. It complements traditional learning by layering workshops, case studies and interaction with key business leaders on top of participants own ideas. What makes the YEP, which is aimed at fostering an entrepreneurship culture among 15 – 23 year olds in Kerry's, Limerick's and Cork's (Ireland) 2nd and 3rd level institutions, different from other youth entrepreneurship focused programs is the connections it creates between students, teachers and business (YEP 2011).

The implementation of this program in the county Kerry (Ireland) is the result of educators, state bodies, entrepreneurs, private sector companies and individuals pooling their resources for the common good and to provide an enriching experience for the participants and the environment. However, the successful Irish entrepreneur Jerry Kennelly (winner Ernst & Young Entrepreneur of the Year, and former CEO of Stockbyte) has been instrumental in the launch and roll out of the program (Cooney 2011). He has spearheaded the program since the concept was first mooted in 2006 with the Institute of Technology Tralee (ITT), Shannon Developments Kerry Technology Park and the Tom Crean Centre. Thus, a reason for the success of the program, which was implemented in 2007/08, may be that researchers, teachers, entrepreneurs and business people ***developed the program jointly***, resulting in a feasible (due to the teachers' and researchers' input and evaluation), realistic and goal-oriented (due to the input of entrepreneurs and business people) educational model that prepares students well for their future careers as entrepreneurs or intrapreneurs.

The program is now studied by over six hundred second and third level students in the county each year and has received international recognition for its innovative approach to entrepreneurship education and the high level of interaction between students and entrepreneurs, or as Jerry Kennelly puts it: "Over the past three years, 1,600 students have graduated from the Young Entrepreneur Programme [YEP] and this number is set to increase to over 1,900 by 2013. The "YEP" generation will be better prepared for the freedom and joy of entrepreneurship than any of those who have come before them." Now in its fourth year, 22 secondary schools along with

third level students from the Institute of Technology, Tralee are participating in YEP. The program structure includes **timetabled classroom learning**, **local business mentors** linked to schools/Institute along with **various events** throughout the year where students have the opportunity to learn from business leaders (ITT 2011).

Referring to the content of YEP, participants of the program have to identify a business idea and develop a **business plan** for that idea during this 8 month program. The students develop their business plans under the **guidance of their teachers**, who receive **educator training** on all aspects of the program and entrepreneurship, as well as **dedicated business mentors** for the duration of the program (Cooney 2011).

In spring the students sit an examination and the best business ideas are then shortlisted for the final, which culminates in an **awards ceremony** in May, where the **Young Entrepreneur of the Year** is announced. There are three category winners: Second Level, Third Level and Best School. In 2011, the second level winner receives a trip to Silicon Valley California, giving them an opportunity to visit iconic companies such as Apple, Google and Facebook. The third level winner receives €5,000 seed capital and the best school receives an IT package to the value of €5,000. In addition, the shortlisted finalists receive a two week internship with a mentor company and an entrepreneurial day trip to Dublin in April (ITT 2011).

Besides the development of the business plan and the awards ceremony, the **Business Boot Camp day** is an integral part of the YEP. Well known businesses take the stage at the Business Boot Camp **discussing their journeys to a successful business**, the difficulties they faced and key tips to a winning business pitch to the students and business mentors attending the event. Within this boot camp the students also get their first taste of **pitching a business idea to a panel outside their school**. More precisely, students get the opportunity to showcase their ideas to a panel of successful entrepreneurs who provide feedback on areas such as originality of idea, market potential, costing and revenue potential. The speakers taking part in the boot camp day are a combination of **local businesses** that have seen success in their own county, national success and international success, telling the students how they developed their businesses from an idea to the success it is today (ITT 2011; YEP 2011).

Another element of the YEP is the **Blue Sky Day** on which entrepreneurs, intrapreneurs, policy makers share their insights to entrepreneurship and provide young people with much food for thought on how they can help create the country's future economy.

Summing up, Jerry Kennelly, co-founder of YEP, believes it is programs such as YEP that will help to develop a generation of graduates with an entrepreneurial spirit: "Thanks to the programme, they will be given access to the concept that their future success is only limited by their imagination, and their hunger to learn new skills, to satisfy the global demand for better, faster, cheaper and more innovative goods and services."

The YEP is a not-for-profit organization dedicated to illustrating the validity of entrepreneurship as a career choice (with the support of sponsors). Its mission is to help identify, inform, recognize and train Kerry's next generation of business leaders - and their educators, so that they can become local or global entrepreneurs in business or alternatively bring entrepreneurial thinking to their place of work, to Government or to education itself.

4. RECOMMENDATIONS

From the analysis of the implementation processes of new initiatives in the field of entrepreneurship education, the following factors influencing the success of educational models promoting the entrepreneurial spirit can be derived:

- **teachers** acting in their classrooms as entrepreneurs (the key to successful entrepreneurship education are teachers that show total commitment, personal responsibility, drive to achieve, motivation, persistent problem-solving and that take the initiative in developing and implementing innovative teaching methods like coaching, team-teaching, project-based learning, etc.)
- institutional and political **support**
- **sponsors**
- **network/participation of local and international businesses** and the associated entrepreneurs and intrapreneurs (who are willing to participate in the program – in the form of telling their stories, being part of panels within business plan evaluations, providing work placements, etc.)
- **evaluation and continuous development** of the program (on behalf of external organizations, e.g. universities)

Basically, the following checklist needs to be taken into account in the course of developing an educational program targeting future entrepreneurs or intrapreneurs successfully so that they bring entrepreneurial thinking and behavior to their future place of work (Hytti 2011):

- Start with the expected results by answering the following question: Are you trying to promote and help participants
 - to start-up or manage their enterprises?
 - to become more entrepreneurial in their lives?
 - to know about entrepreneurship?
- Next, move on to the methods for learning and teaching and match them with the expected results. Some rules of thumb are:
 - Setting up businesses within entrepreneurship education programs does not automatically create positive attitudes towards entrepreneurship.

- Lectures and information about entrepreneurship does not provide students with the actual skills needed for becoming a successful entrepreneur.
- Taking responsibility of one's learning is the first step in becoming more entrepreneurial.
- Characterize the audience by answering the following questions: What kind of expectations do they have as to entrepreneurship education and can they be met by applying a general approach?

Finally, the following recommendations for embedding entrepreneurship successfully in curricula across all educational levels/types can be given (Hytti 2011):

- Students should be able to act independently within projects and teachers should offer support and advice only if necessary, and thus, limit their authoritative role.
- Monitoring students and providing them with feedback is necessary in order to avoid frustration or work overload.
- The workload for teachers and students can become a problem which may be solved by integrating entrepreneurship education in other subjects and by introducing voluntary seminars and assignments.
- If students do internships, they need special preparation, coaching and support measures in order to prevent feelings of isolation.
- Post-learning care for the participants is necessary in order to support continuous development (reflection).

Teachers should be provided with continuous training to increase their support of new teaching methods and/or to strengthen their content-based skills as it has been observed that the greater the familiarity with entrepreneurship, the better the teaching of entrepreneurship. Moreover, teachers should take part in peer discussion in order to reflect their experiences with the new teaching methods. Summing up, there is a need to create stronger links with the business community in order to achieve the objectives of these highly innovative educational models.

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